1. A surgical arm system, comprising:

a mounting component for mounting the surgical arm system to an object;

a holding component for holding a ball that is sized and shaped to retain a predetermined surgical instrument;

a plurality of arm segments for connecting the mounting component to the holding component, the plurality of arm segments including first and second components, the first component being located proximal to the second component;

a quick connect member attached to the first component; and

a quick connect adapter attached to the second component and having a stop disk and a spring-loaded ramp and actuator attached thereto, the quick connect adapter also having an adjustable dimensional gap defined therewithin, wherein the quick connect member is shaped to be insertable in a distal direction within the quick connect adapter to bring the first component into communication with the second component,

wherein such insertion is effective to cause the ramp and the actuator to be at least partially depressed from their respective at rest positions, and such that continued distal insertion beyond a predetermined locus is effective to cause the ramp and actuator to return to their respective at rest positions to physically block proximal movement of the quick connect member, and wherein the stop disk is positioned to substantially prevent distal movement of the quick connect member following insertion of the quick connect member beyond the predetermined locus.

2. The surgical arm system of claim 1, wherein actuation of the actuator is effective to place the actuator and the ramp in their respective at rest positions to allow for removal of the quick connect member from the quick connect adapter via the application of a predetermined proximally-directed force upon the quick connect member.

3. The surgical arm system of claim 1, wherein the quick connect adapter is attached to the second component so as to define a gap therebetween.

4. The surgical arm system of claim 1, wherein the proximal component is a mounting that includes first and second mounting jaws between which the object is mounted.

5. The surgical arm system of claim 4, further comprising:

a knob in communication with the jaws, wherein clockwise turning of the knob is effective to move the mounting jaws closer together and wherein counterclockwise turning of the knob is effective to move the jaws further apart.

6. The surgical arm system of claim 5, wherein the knob is positioned with respect to the object such that the knob is outside of a sterile field during a surgical procedure.

7. The surgical arm system of claim 1, wherein the object to which the system is mounted is a bed rail.

8. The surgical arm system to claim 1, wherein the surgical instrument is a retractor.

9. The surgical arm system of claim 1, wherein the quick connect member includes a proximal region that, following distal insertion of the quick connect member beyond the predetermined locus, is located entirely distal to the ramp.

10. The surgical arm system of claim 9, wherein the proximal region is substantially bell-shaped.

11. The surgical arm system of claim 9, wherein the quick connect member includes a recessed region distal to the proximal region.

12. The surgical arm system of claim 11, wherein the ramp is positioned within the recessed region upon returning to its at rest position following distal insertion of the quick connect member beyond the predetermined locus.

13. An instrument-holding portion of a surgical arm system, comprising:

a ball having an opening defined therein, wherein the opening is sized to accommodate a proximal end of a surgical instrument, the ball having at least one slit defined therein to define a clearance gap between the ball and the instrument while the ball is in a relaxed state;

at least one spring-loaded instrument retention guard disposed within the ball, wherein each of the at least one retention guard is in contact with the proximal end of the surgical instrument while the ball is in a relaxed state so as to define a transitional fit between each of the at least one guard and the proximal end of the instrument; and

a holding element within which the ball is retained

14. The instrument-holding portion of a surgical arm system of claim 13, wherein the ball is transitionable to and from the relaxed state by, respectively, supplying and discontinuing a supply of a pressurized gas to the ball.

15. The instrument-holding portion of a surgical arm system of claim 13, further comprising:

a retaining element insertable within the holding element, the retaining element including a plurality of protrusions, wherein a pin extends between two of the plurality of protrusions,

wherein a predetermined degree of rotation of the retaining element is effective to insert the protrusions into seats defined within the holding element such that the pin is placed into contact with the ball.

16. The instrument-holding portion of a surgical system of claim 15, wherein the predetermined degree of rotation is about 90°.

17. The instrument-holding portion of a surgical arm system of claim 15, wherein the retaining element includes an O-ring disposed around its circumference.

18. The instrument –holding portion of a surgical arm system of claim 13, wherein the holding element is a clamp.

19. The instrument –holding portion of a surgical arm system of claim 18, wherein the holding element is a substantially C-shaped clamp.

20. A quick connect system for bringing into communication a first component of a surgical arm system with a second, distally located component of the surgical arm system, comprising:

a quick connect member attached to a first component; and

a quick connect adapter attached to a second component; and having a stop disk and a spring-loaded ramp and actuator attached thereto, the quick connect adapter also having an adjustable dimensional gap defined therewithin, wherein the quick connect member is shaped to be insertable in a distal direction within the quick connect adapter to bring the first component into communication with the second component,

wherein such insertion is effective to cause the ramp and the actuator to be at least partially depressed from their respective at rest positions, and such that continued distal insertion beyond a predetermined locus is effective to cause the ramp and actuator to return to their respective at rest positions to physically block proximal movement of the quick connect member, and wherein the stop disk is positioned to substantially prevent distal movement of the quick connect member following insertion of the quick connect member beyond the predetermined locus.

21. The quick connect system of claim 20, wherein actuation of the actuator is effective to place the actuator and the ramp in their respective at rest positions to allow for removal of the quick connect member from the quick connect adapter via the application of a predetermined proximally-directed force upon the quick connect member.

22. The quick connect system of claim 20, wherein the quick connect adapter is attached to the second component so as to define a gap therebetween.

23. The quick connect system of claim 20, wherein the quick connect member includes a proximal region that, following distal insertion of the

quick connect member beyond the predetermined locus, is located entirely distal to the ramp.

24. The quick connect system of claim 23, wherein the proximal shaped region is substantially bell-shaped.

25. The quick connect system of claim 23, wherein the quick connect member includes a recessed region distal to the proximal region.

26. The quick connect system of claim 25, wherein the ramp is positioned within the recessed region upon returning to its at rest position following distal insertion of the quick connect member beyond the predetermined locus.

27. A quick connect system for bringing into communication a first component of a surgical arm system with a second, distally located component of the surgical arm system, comprising:

a quick connect member attached to a first component and including a substantially bell-shaped proximal region and a recessed region distal to the proximal region; and

a quick connect adapter attached to a second component; and having a stop disk and a spring-loaded ramp and actuator attached thereto, the quick connect adapter also having an adjustable dimensional gap defined therewithin, wherein the quick connect member is shaped to be insertable in a distal direction within the quick connect adapter to bring the first component into communication with the second component,

wherein such insertion is effective to cause the proximal region of the quick connect member to at least partially depress the ramp and the actuator from their respective at rest positions, and such that continued distal insertion of the proximal region of the quick connect member beyond a predetermined locus is effective to cause the ramp and actuator to return to their respective at rest positions within the recessed region of the quick connect member and to physically block proximal movement of the quick connect member, and wherein the stop disk is positioned to substantially prevent distal movement of the quick connect member following insertion of

the proximal region of the quick connect member beyond the predetermined locus.